

## COMPOSITIONS AND METHODS FOR SYNTHESIZING NUCLEIC ACIDS

### ABSTRACT OF THE DISCLOSURE

Disclosed are compositions preferably for use in nucleic acid synthesis that include one or more anti-reverse transcriptase (RT) antibodies and/or one or more anti-DNA polymerase (DNAP) antibodies and/or single strand binding proteins (SSBs). Some of the disclosed compositions include one or more anti-DNAP antibodies and/or one or more anti-RT antibodies and one or more SSBs. Other disclosed compositions include two or more SSBs. The disclosed nucleic acid synthesis compositions also can include one or more DNAPs, one or more RTs, one or more nucleotides, one or more primers, and/or one or more templates.

Also disclosed are methods for using such compositions in nucleic acid synthesis, amplification and sequencing, where various combinations of anti-RT antibodies, anti-DNAP antibodies and/or SSBs can improve the yield and/or homogeneity of primer extension products.